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(54) Title: **SUCROSE-INDUCIBLE PROMOTER FROM SWEETPOTATO**

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1008
ACTGATACCTTGGTGACGCTATTGTTGTTTGGTCTTGGCCAAATCTATTGAGGGAGGGGAAAGTAGAA
GTGTCAGGGGATTGGTGTGGTGGGTTTCGAAAGTTTCCCTTTTCCTTTCTATTCTAGTTTGTCTC
GTCAIAAGTGTCAGGGATTGGTAACCAATAAAATCTCATCTTTAACCTATATGTATGTTCTAGTATCAT
AATTAAAGCTTTTACGCAAGGAATGTTGCAATTTAGGTCATTTTTAAATGTCTATCAATTGATCAATTTCAAG
TAAAGAAAACCTCTGGCTCTAATGCTGGGACTTTGGTTTCTTTATTATGCACTTTTATGGGATAAAGGTTG
GTTATGCTGGCATCCCCGGGCAATCGGAAGAGATGGAGCTCTGCTCCAGGAGGGGGTGTGCTGACG
CTGAAATGGGAGCTAATTTCTTTTGAATAATGCTTTGTTTCTTTGTTTAAATTCGTGACTAATGTTTCTT
GTTTTAAATTTCTTCAAAAGCTTACCTATGTAACCTGCTGTTATATGTAATGTAATCAACAGCCAGCATTAGGA
TGNAAATAGAGGTTTCAAAATTAACCTCAACCAAGAACTCTGCTTATTTGAGAAATTAATCACTTCTCAAAA
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GCTCATATGAGCTAAATATTATTATTATTTTATAAATAATTTCCGCCCATATCATATAATTTGGCCA
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AAGTCACATGCTATCATATCATGTTATTTTCATATAAATAAATAAATAGTATACCCACCTGATTTT
GCTCAAACTTCAAAATATACCTTGGTCACTGAAATGCTAGCGCTGGTTTGGAGGGCAAACTGATAA
TGTTCAGCAATTTTGGCAATTAGGTAATAGGTTTCACTATTGTAACACTTACTATATAAAGGAGGCT
AGTTTGTGCAAAATTTT
+1
AACAGATCACTGCTTTCACACACTCCAAAGTCCGAGAGAGCTCAGAGTGGTAGCGCGGTTAAAAATG
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(57) Abstract: Disclosed herein are a novel sucrose-inducible promoter sequence and a 5' untranslated region which are derived from sweetpotato ADP-glucose pyrophosphorylase gene (*ibAGP1*) (SEQ ID NO: 1). Also disclosed are expression vectors using the same sequences and a transgenic plant using the same vectors. The promoter and 5' untranslated region according to the present invention can confer a high level of sucrose-inducible expression in plants, particularly in plant storage roots which contain sucrose in relatively large quantities to accumulate starch in large quantities in plants. Therefore the present invention may be useful for the generation of transgenic plants to produce useful proteins in large quantities in plant storage roots.



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